Dimplex Installation and Operating Instructions

Models Covered:

QXD1500
QXD3000
QXD4500

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IMPORTANT

- **These instructions should be read and carefully retained by the user.**
- **The installation of these appliances must always be carried out by a competent electrician and be in accordance with the current wiring regulations and relevant Building Regulations.**
- **The radiated heat from the heater is considerable and must be taken into account when locating the heater. Ensure that the heater is not used in close proximity to the skin or eyes.**
- **Always isolate the heater from the supply before undertaking any maintenance work on the appliance.**
- **The QXD range of heaters are designed for internal use only. They are not rated as flame-proof and must not be used when flammable dusts, gases, or vapours, etc. are likely to be present in the atmosphere. If in doubt, advice should be sought from the Health and Safety Executive inspectors or local fire officers.**
- **Quartz lamps are extremely fragile and must be handled with extreme care at all times. Avoid touching the surface of the quartz sleeve with bare fingers. If the sleeve is accidentally touched remove the finger print with a soft cloth moistened with methylated spirits.**
- **This heater must not be located immediately above or below a fixed socket outlet or connection box.**
- **The life expectancy of the halogen lamps in normal operating conditions is over 3000 hours.**
- **The heater must be installed in a location that is free from vibration.**

WARNING – THIS APPLIANCE MUST BE EARTHED.

SPECIFICATIONS

The Dimplex QXD range is available in 1,2 and 3 lamp models with outputs of 1.5kW, 3.0kW and 4.5kW respectively. The three lamp models are supplied as dual voltage units and are suitable for use on 230-240V and 415V 3N supplies.

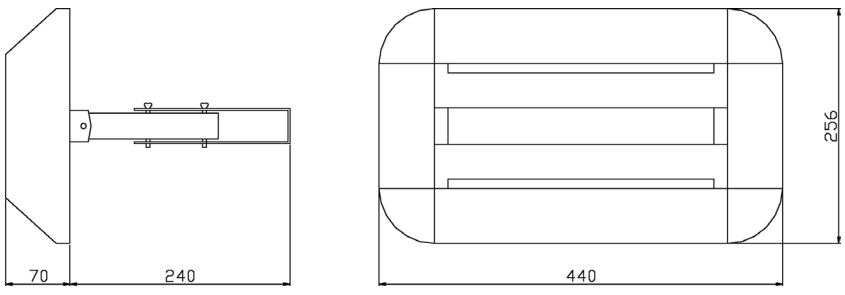
General Data:

Model No.	No. of Lamps	Rating (kW)	Voltage (V)	Weight (kg)
QXD1500	1	1.5	230-240	3.7
QXD3000	2	3.0	230-240	4.3
QXD4500	3	4.5	230-240	5.8

Material and Finished
Body Casing – Low carbon steel, powder coated.
Reflectors – 1080 (SIA) 99.8% Alum. Electrochemically brightened specular finish.

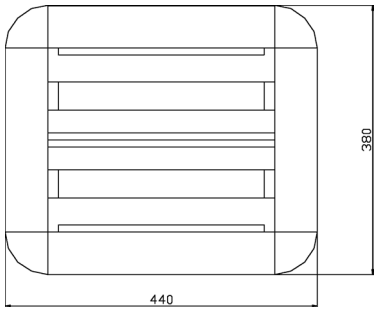
DIMENSIONS

QXD1500/1500ND/1500G



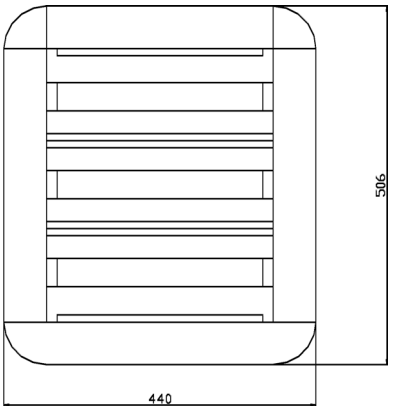
All dimensions in mm

QXD3000



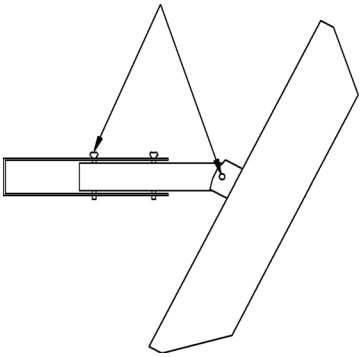
All dimensions in mm

QXD4500

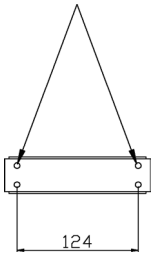


UNIVERSAL BRACKET MOUNTING

ANGLE ADJUSTMENTS



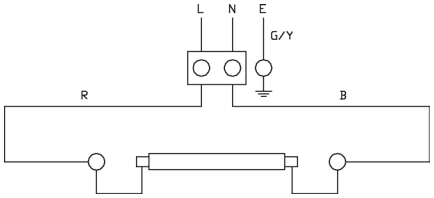
4 FIXING HOLES



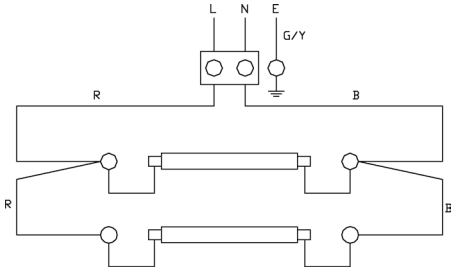
WIRING DIAGRAMS

G/Y = GREEN/YELLOW
R = RED
B = BLACK

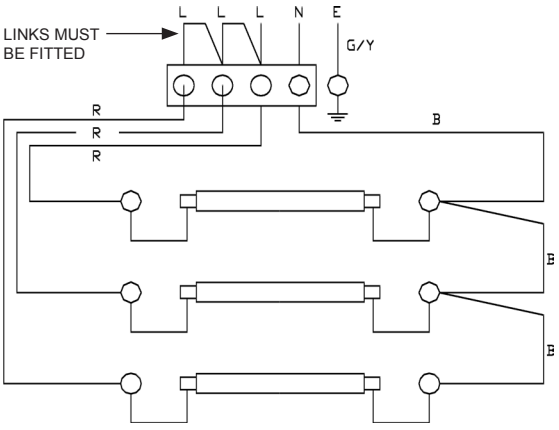
QXD1500



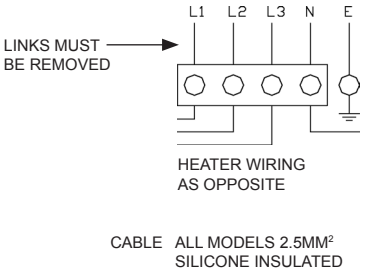
QXD3000



QXD4500



(a) External connections for 230/240V 1pH



CABLE ALL MODELS 2.5MM^2
SILICONE INSULATED

(b) External connections for 415V 3N

1. Location

The siting of the heater(s) should be such as to allow an even and uninterrupted distribution of radiation to the area(s) to be heated. Heaters are most effective when the beam angle is inclined down at an angle of 30º to 45º to the vertical.

2. Mounting

IMPORTANT

When deciding upon the best location, consideration must be given to the following requirements.

(a) Avoid structures liable to vibration, e.g. crane gantries, which could otherwise adversely affect lamp life.

(b) The lamps are designed to operate within 5º of the horizontal plane. It is very important to ensure that the heater is mounted horizontally, otherwise the operating life of the lamp could be impaired.

(c) Allow a minimum of 0.5 metre clearance between the top of the heater and the ceiling. (Dimension 'C' on the appliance rating label.) Allow a minimum of 1.5 metre clearance between the edge of heater and the adjacent wall facing that edge. (Dimension 'B' on the appliance rating label.)

(d) Ensure appliance is mounted the correct way up so that it can be tilted down but not up.

Mounting height: Allow the following mounting height between the base of the heater and the floor. (Dimension 'A' on the appliance rating label.)

Model No.	Rating (kW)	Min. Height (m)	Recommended Height (m)
QXD1500	1.5	2.1	2.5
QXD3000	3.0	2.5	2.5-3.5
QXD4500	4.5	3.0	3.5

Note: If more than one heater is to be installed, ensure that the lamps of adjacent heaters are more than 3.5 metres apart.

Mounting Brackets

Heaters are supplied with a universal bracket which may be fixed through the mounting holes to any suitable structure. The bracket allows the heater to be inclined to the required angle from the vertical and permits the heater to be swivelled laterally. It is recommended that when inclined from the vertical and swivelled care is taken to ensure that the lamps are still horizontal. WARNING – THESE HEATERS ARE DESIGNED TO BE WALL MOUNTED ONLY – THEY MUST NOT BE CEILING MOUNTED. THEY MUST NOT BE MOUNTED IN A ROOM CONTAINING A BATH OR SHOWER.
DO NOT MOUNT HEATERS CLOSER THAN 3.5 METRES FROM CURTAINS OR SIMILAR SOFT FURNISHINGS.

3. Electrical Supplies

Wiring to the heater must be installed in compliance with the requirement of the wiring regulations and any local or insurance regulations.

All heaters are suitable for use on 230-240V single phase supplies. The 4.5kW model is supplied as a dual voltage unit and is also suitable for use on 415V three phase supplies.

Heaters must be protected by fuses to the following rates:

Model No	Input Rating (kW)	Current Rating (A)		Fuse Rating (A)	
		230-240V	415V	230-240V	415V
QXD1500	1.5	6.25	-	10	-
QXD3000	3.0	12.5	-	13	-
QXD4500	4.5	18.75	6.25/Ph	20	10/Ph

Wiring between the heater and the spur outlet or isolation switch must be in a heat resisting cable (e.g. butyl rubber or high temperature PVC insulated). Sufficient slack cable must be left to allow for angular adjustment of the heater body.

An all-pole isolating switch with a minimum separation of 3mm in each pole must be fitted adjacent to the heater to facilitate local isolation.

If miniature circuit breakers are to be used, to avoid 'nuisance tripping' due to the high in rush at switch on, a type 3 or 'C' rated MCB with a tripping coefficient of 7-10 times rated current should be used. Any other switching device should be Tungsten lamp load rated.

4.5kW heaters must be connected in accordance with the instructions. When connecting to 415V three phase supplies the links must be removed from the terminal block. When using the heater on 230-240V supplies the "Danger 415V" notice should be removed from the terminal cover.

Always ensure that the cable grip is tightened.

4. Coverage for Spot Heating Applications

The area heated by a Quartz Halogen Heater depends on the height and the angle at which the heater is mounted.

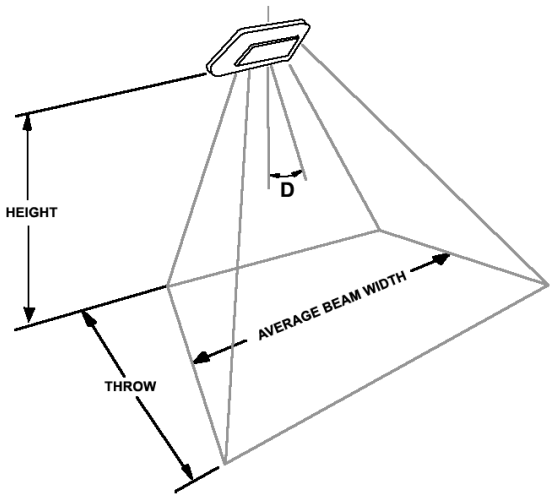
For 30° Heater Mounting Angle:

Area Covered	= (Height)² x 2.66
Average Width of Beam	= Height x 2.0
Throw of Beam	= Height x 1.33

For 45° Heater Mounting Angle:

Area Covered	= (Height)² x 5.72
Average Width of Beam	= Height x 2.2
Throw of Beam	= Height x 2.6

*Note:
Area covered, width and throw of beam are measured at floor level.
The table below indicated throw and spread measured 1 metre above floor level which may be a more appropriate measurement for some applications.



The following tables show the recommended mounting heights for three typical average intensity requirements:

Average Radiant Intensity on Heated Area (W/m²)	QXD1500			QXD3000			QXD4500		
	Height (m)	Throw (m)	Spread (m)	Height (m)	Throw (m)	Spread (m)	Height (m)	Throw (m)	Spread (m)
Angled 30° from vertical									
150	2.9	2.5	3.8	3.7	3.6	5.4	4.4	4.4	6.7
200	2.7	2.2	3.3	3.4	3.1	4.7	3.9	3.8	5.8
250	2.5	2.0	3.0	3.1	2.8	4.2	3.6	3.4	5.2
Angled 45° from vertical									
150	2.3	3.4	2.9	2.9	4.9	4.2	3.3	5.6	5.0
200	2.1*	2.9	2.4	2.6*	4.1	3.5	3.0*	5.2	4.4

Note

1. Intensity is average intensity in W/m² based on Wattage of heater and area covered and measured on a horizontal plane 1m above the floor level.
2. Heater mounting heights are in metres and are above floor level. Those marked '*' are minimum mounting heights for the particular heater model.
3. Throw and spread figures are in metres.

5. COMMISSIONING

1. Checks on the electrical installation should include earth continuity and insulation tests and must be undertaken by a competent person.
2. Ensure that all the electrical connections at the lamps and the terminal rails have been made correctly, that they are tight and that there is no loose or frayed wire.
3. Replace and secure the terminal cover and replace and secure the front panel.
4. Check that the mounting bracket is securely fixed in the vertical position such that the lamps remain in a horizontal plane at all angles of heater displacement.
5. Roughly align the heater(s) and tighten the adjusters.
6. Switch on the heater(s) and check that the lamp(s) are all operating. If time or temperature controls are fitted check these for correct and safe operation by reference to the supplier's instructions.
7. Make any adjustments that are necessary to give an even spread of heat over the required area. This may be done simply by perception of the heating effect or by using the distribution of visible light either at night or by darkening the room.

Hand over
Hand over these instructions and make sure the user is familiar with all aspects of operation and safety including the need for regular cleaning and an annual inspection.

In the event of the premises being unoccupied then leave heater(s) switched off and isolated from the electrical supply. Leave instructions adjacent to the electricity meter.

6. MAINTENANCE

Since the Dimplex Quartz Heater contains no moving parts little maintenance is required beyond cleaning and lamp replacement. It is however, essential that the heater is not operated with accumulation of dust or dirt on the lamp(s) or reflector(s) as this can cause a build up of heat and eventual damage. For this reason the heater must be inspected regularly depending upon conditions and at least at yearly intervals.

Before undertaking any maintenance work on the heater due attention must be paid to the following:

1. Always disconnect the heater from the electricity supply before attempting to work on or near it.
2. Always ensure a safe means of access using an access tower or properly supported ladder.
3. Some types of quartz lamps run with an internal pressure in excess of atmospheric pressure and while construction is very strong there is a slight risk of shattering. If it is necessary to examine a bare lamp whilst in operation then a protective screen must be used.
4. Allow adequate time for the lamps and body casing to cool before attempting to work on the heater.

7. LAMP REPLACEMENT

<u>WARNING.</u> BEFORE UNDERTAKING THIS TASK ENSURE THE HEATER IS DISCONNECTED FROM THE ELECTRICITY SUPPLY.

1. Detach heater from its mounting position.
2. Unscrew the front panel by loosening the corner fixing screws, and then lift front panel clear.
3. Disconnect the wires to the old lamp by removing the lock nuts retaining the terminal ends adjacent to the lamp clips. Do not slacken the screws as this could disturb the internal wiring.
4. Remove the lamp by gently releasing the ends from the spring clips. Keep the lamp secure and do not twist the ends or apply undue force. IMPORTANT - Release and retain the high temperature cable ties from the element wires. (These must not be substituted).
5. Before removing the new lamp(s) from its protective packing it is important to be aware that quartz lamps are fragile and must be handled with care at all times. Avoid touching the surface of the quartz sleeve with bare fingers. If the sleeve is accidentally touched remove the finger print with a soft cloth moistened with methylated spirit.
6. Hold the lamp firmly but gently at each end and offer up to the spring mounting clips. The wire leads should face towards the front of the heater. Push the lamp fully into the clips taking care to keep it square. Do not twist the ends or apply undue force. If either end of the lamp will not easily engage in the spring clips remove the lamp and gently ease the spring.
7. The wire from each end of the lamp must be connected to the threaded connector ON THE SAME CLIP AS THE LAMP END. With the outside not loosened, insert the spade between the two outside nuts and tighten firmly.
8. When the lamp has been fitted check that the electrical connections have been correctly made. Re-use the same cable tie to tether the element wires in place. Re-fit the front panel, checking that wires are not trapped.

INSPECTION AND CLEANING

1. Check that all the lamps are functioning. If any thermostatic or time controls are fitted ensure that the supply is 'on' before checking lamps. Any failed lamps should be replaced (see lamp replacement). Remove any accumulated dirt and check wiring and connections.
2. Clean the lamp(s) and reflector(s) using a mild detergent solution and soft cloth. Do not use any abrasive or caustic cleaners. Dry with a soft cloth. Avoid touching either, the quartz lamp sleeve or the aluminium reflector with bare fingers. If they are accidentally touched remove any finger prints using a soft cloth moistened with methylated spirit.
3. Check that the lamp(s) are properly located in the spring retaining clips and that they have not been disturbed by cleaning. The lamps should be pushed fully back into the clips for applying light pressure on the end caps only.

SAFETY IN OPERATION

The heater is operated by simply switching on the electrical supply, or, if used in conjunction with a control system, then the supplier's instructions must be observed.

ALWAYS disconnect the heater from the supply before attempting to work on or near it.

NEVER operate the heater with a high accumulation of dust or dirt on the lamp(s) or reflector or with a damaged or corroded reflector.

This appliance is not intended for use by children or other persons without assistance or supervision if their physical, sensory or mental capabilities prevent them from using it safely. Children should be supervised to ensure they do not play with the appliance

NEVER use the heater outside or in contact with water.

NEVER use the heater where flammable dusts, gases or vapours, etc. are likely to be present in the atmosphere.

NEVER operate the heater in close proximity to the skin or eyes.

NEVER allow materials which could be damaged or ignited by the radiated heat to be placed in close proximity to the heater.

NEVER cover the heater – even when it is switched off.

ALWAYS refer to these instructions before attempting to dismantle the heater.

AFTER SALES SERVICE

Your Dimplex Quartz Heater is guaranteed for one year from the date of purchace. We undertake to exchange or repair free of charge within this period, any part found to be defective due to a manufacturing fault.

Should you require after sales service, please get in touch with the supplier through whom you purchased the appliance, or the contact number on your Warranty leaflet.

Please do not initially return a faulty appliance or part of an appliance as this may result in transit damage and/or delay in providing service. Let us know your difficulty quoting the model number and series letter of the appliance. We will then take the appropriate action.

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